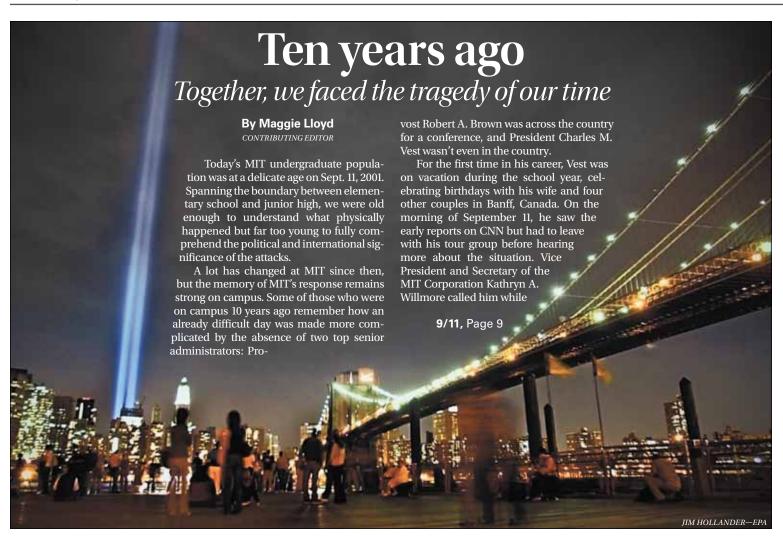
tech.mit.edu Volume 131, Number 35 Friday, September 9, 2011



Class of 2015 is typical, or better, on GIR ASEs

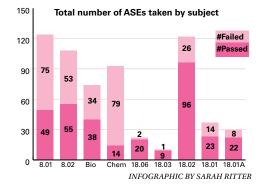
Freshmen do well overall, place out of more physics GIRs with AP/IB credit

By Patreece H. Suen

The class of 2015 has outshone previous classes on several Advanced Standing Exams this year. A higher number of students in this year's freshmen class are also placing out of General Institute Requirements through sufficient scores from AP and

As it has been in past years, the most common ASEs taken were 18.01 (Single Variable Calculus), 18.02 (Multivariable Calculus), 8.01 (Classical Mechanics), 8.02 (Electricity and Magnetism), 7.012 (Biology), and 5.111 (Principles of Chemical

The number of students who passed the physics ASEs this year was "perfectly normal," said Krishna Rajagopal, associate head for education in the Physics Department. Of the 124 freshmen who sat for the 8.01 ASE, 49 students passed; for the 8.02 ASE, 55 out of 108 passed. These numbers are slightly lower than last year, when 49 out of 89 students passed the 8.01 ASE and 68 out of 87 passed 8.02.



However, the number of students who received MIT credit or placement into higher-level classes granted from AP and IB scores was "way up from previous years," Rajagopal said.

'We in the physics department are absolutely delighted," he added. "The admissions office has attracted students whose physics background is stronger than before, which is great."

Biology saw a marked improvement in passing

scores this year as well. "The percentage of students who passed this year [51 percent] was higher than in previous years," said Janice Chang, the Associate Administrator for the Biology Department. A total of 38 students passed out of the 74 students who took the 7.012 ASE. Last year, less than 20 percent of students taking the biology ASE passed.

The 18.01 ASE had a 62 percent pass rate. Because more students are testing out of 18.01, fall enrollment for 18.02 is higher than before.

"The incoming class is more competitive and better prepared," said Jeffrey Kinnamon, the Associate Administrator for the Mathematics

The 5.111 ASE had a similar pass rate compared to last year — 14 out of 93 students passed, or about 15 percent (last year was around 14 percent).

Students planning on taking ASEs for the spring semester must complete an ASE petition form and contact the appropriate departments to find out when specific exams are offered. Check http://web.mit.edu/registrar/classrooms/exams/ ase_exams.html for more information.

REX sees hiccups, but still a **success**

Irene, REX guides cause some trouble

> By Rebecca Han STAFF REPORTER

Orientation is always an exciting time. 2011 was no exception.

After several days of free food and fun, Residential Exploration (REX) came to an end with the closing of the freshmen adjustment lottery on Tuesday, Aug. 31 at 4 p.m. But the closing ceremonies for orientation were on Saturday, Sept. 3 — a day early due to the threat from Hurricane Irene.

Concern over Irene caused a lastminute closing of the MIT campus on Sunday, Aug. 28. As a result, the Killian "kick-off" was delayed, and convocation was completely cancelled. "[Convocation] is one of the bookends,' along with Commencement," said Elizabeth C. Young, Dean of the Undergraduate Academic Advising Program (UAAP). "It's a way to welcome freshmen and their parents

Despite the cancellation, President Susan J. Hockfield still had a chance to address the Class of 2015 at the faculty keynote on Tuesday.

Though the orientation schedule changes were clearly posted on the Class of 2015 "First Year" website, and the Orientation Guide (also known as the Hitchhiker's Guide) was updated online, changes in dormitory-specific events were not as well communicated. Not all dormitories cancelled their Sunday activities, and those that did were not able to promptly update the Dormitory Council (DormCon) issued REX Guide, which provided a comprehensive list of the daily events hosted by individual dorms around campus.

Some students enjoyed the unexpected respite, taking the time to relax and explore their current dorm.

REX, Page 15

IN SHORT

A September 11 memorial service will be held in Lobby 10 this Sunday at **8:30 a.m.** The ceremony will continue outside to lower the flag in Killian Court. Be on time, as a moment of silence will be held at 8:46 a.m.

Today is the last day to register for classes. All registration forms turned in after 5 p.m. today will be considered late and subject to a \$50 fee.

The APO book exchange

ends today. Buy your re-415 from noon to 5 p.m.

Election packets for the UA are due Monday 9/12 for students running for Senate and the 2015 class council. Packets can be found online at http://ua.mit.edu.

PE classes begin on Monday. Don't forget to attend the first day of class to maintain your spot!

Send news information and tips to news@tech.mit.edu.

MIT fined \$175K after FedEx fire

Package with Li. batteries catches fire in Medford

By John A. Hawkinson

STAFF REPORTER

The Federal Aviation Administration is proposing a \$175,000 fine for MIT, as a result of a CSAIL researcher shipping 33 devices with lithium batteries via FedEx in a box not labelled for hazardous materials — a violation of federal law. The box caught fire at FedEx's Medford, Mass., facility on Aug. 25, 2009.

FedEx fire, Page 11



Freshmen stand, kneel and sit on the floor at the back of 26-100 during the first lecture of 7.012. The fall semester biology GIR spilled over the 566-seat capacity of 26-100, though there was no overflow room, as is typical for the

ARE WE ANY SAFER TODAY?

Anonymous warfare threatens an alreadydelicate balancing act. OPINION, p. 4

MEET YOUR INNER SOX

Everything you need to know about Beantown's team. SPORTS, p. 16

ABORTION RIGHTS ARE RIGHT

The anti-abortion case ignores womens' freedoms. OPINION, p. 4



YOUR FAVORITE MICE ARE BACK!

After summer hiatus, Unnatural Selection's adorableness returns. FUN, p. 6

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Fed chief describes consumers as too bleak

WASHINGTON — Ben S. Bernanke PhD '79, the Federal Reserve chairman, offered a new twist on a familiar subject Thursday, revisiting the question of why growth continues to fall short of hopes and expectations.

Bernanke, speaking at a luncheon in Minneapolis, offered the standard explanations, including the absence of home construction and the deep and lingering pain inflicted by financial crises. He warned again that reductions in government spending amount to reductions in short-term growth.

Then he said something new: Consumers are depressed beyond reason or expectation.

Oh, sure, there are reasons to be depressed, and the Fed chairman rattled them off: "The persistently high level of unemployment, slow gains in wages for those who remain employed, falling house prices, and debt burdens that remain

However, Bernanke continued, "Even taking into account the many financial pressures that they face, households seem exceptionally cautious."

–Binyamin Appelbaum, The New York Times

In a twist, Google reviews Zagat and decides to bite

On Thursday, Zagat, whose burgundy-covered restaurant and bar guides were among the first examples of user-generated content, sold itself to Google, which has made local services one of its highest priorities.

Terms of the deal were not disclosed, but people briefed on the matter said that Google had paid \$100 million to \$200 million. Tim and Nina Zagat, who began the company by compiling restaurant ratings from friends into slim surveys more than three decades ago, will remain with the business.

The deal will most likely mean a lucrative payout for the Zagats, as well as for the private equity firm General Atlantic, which bought a third of the company in 2000. But it also raises questions about how Google will integrate Zagat, whose main offerings include its popular paper guidebooks and a paid subscription website.

–Michael J. De La Merced, Ron Lieber and Claire Cain Miller. The New York Times

Senate approves an overhaul of US patent system

 ${\it WASHINGTON-The Senate approved a sweeping reform}$ of the nation's patent laws on Thursday, sending to President Barack Obama a bill that changes the system for determining priority for inventions at the patent office and provides more financing for an agency beset by application backlogs and outdated computer systems.

After rejecting proposed amendments to a bill approved by the House last June, the Senate voted 89-9 to pass the bill, completing an effort of at least six years to overhaul the patent office's operations and the procedures by which patents can be

Obama, who has made his support for the bill a central piece of his focus on promoting jobs, is expected to sign it into

The bill, known as the "America Invents Act," has not received universal acclaim. The bill changes the method for determining the priority of patent applications to a "first-to-file" system from the historic "first-to-invent" method.

Several groups representing small businesses, entrepreneurs and early-stage investors have said that change puts small companies, which usually account for the bulk of new jobs, and individuals at a disadvantage to large companies that employ fleets of patent attorneys.

—Edward Wyatt, The New York Times

Obama to Congress: 'Pass this jobs bill'

By Mark Landler THE NEW YORK TIMES

WASHINGTON - Mixing politically moderate proposals with a punchy tone, President Barack Obama challenged lawmakers Thursday to "pass this jobs bill" a blunt call on Congress to enact his \$447 billion package of tax cuts and new government spending designed to revive a stalling economy as well as his own political standing.

Speaking to a joint session of Congress, Obama ticked off a list of measures that he emphasized had been supported by both Republicans and Democrats in the past. To keep the proposals from adding to the swelling federal deficit, Obama also said he would set his sights on a more ambitious target for longterm reduction of the deficit.

'You should pass this jobs plan right away," Obama declared over and over in his 32-minute speech that eschewed his trademark oratory in favor of a plainspoken appeal for action - and a few sarcastic political jabs.

With Republicans listening politely but with stone-faced expressions, Obama said, "The question is whether, in the face of an ongoing national crisis, we can stop the political circus and actually do something to help the economy."

Although Obama's proposals including an expansion of a cut in payroll taxes and new spending on public works - were widely expected, the package was substantially larger than predicted, and much of the money would flow into the economic bloodstream in 2012. The pace would be similar to that of \$787 billion stimulus package passed in 2009, which was spread over more than two years. Analysts said that, if passed, the package would likely lift growth somewhat.

While Republicans did not often applaud Obama's plans, party leaders greeted his proposals with a degree of conciliation.

"The proposals the president outlined tonight merit consideration," Speaker John A. Boehner said in a statement. "We hope he gives serious consideration to our ideas as well."

For Obama, burdened by the lowest approval ratings of his presidency, the address crystallized the multiple challenges he faces: reviving a torpid economy with a Republican House that rejects most of his prescriptions and seems emboldened by its success in the recent debt-ceiling negotiations with the White House to continue to defy the president.

After weeks on the defensive, however, the president clearly seemed to be trying to get off his back foot. He framed the debate over the economy as a tug-of-war between mainstream American values and a radical, anti-government orthodoxy that holds "the only thing we can do to restore prosperity is just dismantle government, refund everyone's money, let everyone write their own rules, and tell everyone they're on their own"

He must also shake off a perception, after giving so many speeches on the economy, that he has not delivered on the promise of his oratory.

Investigators assess threat of bombing tied to 9/11 anniversary

By Scott Shane

THE NEW YORK TIMES

WASHINGTON - Counterterrorism officials on Thursday were assessing a new report of a threat of an attack in New York City or Washington using a car or truck bomb, timed to the 10th anniversary of the Sept. 11 attacks, according to several officials briefed on the matter.

In a statement, a spokesman for the Department of Homeland Security, Matt Chandler, called the threat "specific, credible, but unconfirmed." Another official said U.S. intelligence agencies were urgently pursuing leads overseas in an effort to gauge the seriousness of the threat.

"It's in the early stages, and a lot of vetting is being done in other places," the official said.

President Barack Obama was first briefed on the threat Thursday morning, and members of Congress were briefed during the day, officials said.

A White House official said that while the government has already stepped up its vigilance in advance of the anniversary, "the president directed the counterterrorism community to redouble its efforts in response to this credible but unconfirmed information."

The report of the threat came after several quiet weeks in which officials said they were scanning intelligence with extra vigilance before the anniversary, but had found nothing

Chandler noted that in a notebook of Osama bin Laden seized after he was killed, the leader of al-Qaida speculated about mounting an attack 10 years after 9/11 or on another symbolic date.

"As we always do before important dates like the anniversary of 9/11, we will undoubtedly get more reporting in the coming days," Chandler said. "Sometimes this report-

ing is credible and warrants intense focus, other times it lacks credibility and is highly unlikely to be reflective of real plots under way."

But he said officials take all threat reports seriously. "We continue to ask the American people to remain vigilant as we head into the weekend," he said.

One law enforcement official said the initial intelligence report said that at least three suspects in a reported plot, one of them an American citizen, left Afghanistan and entered the United States by air last month. Intelligence agencies have not confirmed the report or identified those involved, the official said.

The official, who like others would speak of the investigation only on the condition of anonymity, said there was no connection to rental trucks reported missing in Kansas City, Mo. The trucks have been recovered and are not believed linked to the threat.

WEATHER

Rain, rain, going away ... for now

By Shaena Berlin

STAFF METEOROLOGIST

Here in Cambridge, everyone is griping about the miserable rain that dampened the first week of classes. However, we escaped the worst of the deluge that continues to cause unprecedented flooding throughout New York, Pennsylvania, and much of the interior Northeast.

Just two weeks after Hurricane Irene dumped water and toppled trees all along the East Coast, remnants of Tropical Storm Lee have coupled with a

preexisting upper low pressure system to bring 1-in-100 year rains. Based on the activity of this season, more systems will likely come through before hurricane season ends on November 30.

The World Meteorological Organization names hurricanes and tropical storms alphabetically (alternating genders) as they form. By this date in the average Atlantic season, six storms have developed, up to letter F; in 2011, there have already been 14 systems, with Tropical Storm Nate in the Gulf of Mexico the latest projected to become a full hurricane.

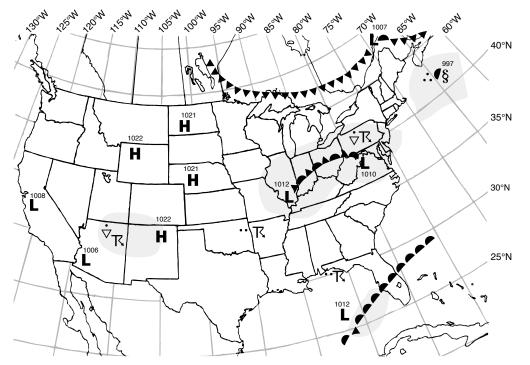
Extended Forecast

Today: Much warmer with high near 79°F (26°C). Cloudy in morning turning to sun by afternoon. N wind at 10mph. Tonight: Mostly clear with low around 63°F (17°C).

Tomorrow: Very pleasant. Mostly sunny with high near 74°F (23°C). NE winds at 8mph.

Sunday: Mostly sunny. High in upper 60s to low 70s F. Low near 57°F (14°C).

Monday: Sunny. High in mid 70s F.



Situation for Noon Eastern Time, Friday, September 9, 2011

| Weather Systems | Weather Fronts | Frecipita | ation 3 | /IIIDOIS | Other Symbols | | |
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LETTERS TO THE EDITOR

Keep discussing tough questions

I would like to commend the *Tech* editors for their editorial on Sept. 6. It reminded me that MIT students are willing to raise difficult questions. Let me offer some resources that may be helpful to you and others wanting to round out their education. The Technology and Culture Forum (TAC) has been asking hard questions for over 40 years. Last year they sponsored, among other programs, a campaign to

discover "What are the most important questions ..." Their ethics seminar is offered again this year. It is 24.190J — Doing Right: Ethical Choices in Literature. Over the course of this year they will also sponsor programs addressing tough topics that demand ethical reflection.

The Dalai Lama Center for Ethics and Transformative Values at MIT is also a resource you might wish to investigate. They bring to campus a variety of programs that try to raise issues of value that may not be discussed in the classroom. Last year I especially enjoyed the Reverend

Mpho A. Tutu discussing her book, *Made for Goodness*. Her thoughts — and those of her famous father Desmond Tutu — offer a bracing contrast to the views presented in Ryan Normandin '13's fine opinion piece about SeekingArrangement.com.

Keep up the good work. What we are about here at MIT is too important for us to be allowed to drift into the ditch of irrelevance, and the role of the press as a corrective is critical.

> Robert M. Randolph Chaplain to the Institute Housemaster, Bexley Hall

GUEST COLUMN

When ignorance trumps knowledge

Tech abortion column ignores the real plight of real women

By Igor Yanovich

Unfortunately, Ryan Normandin's Sept. 2 column "Why life trumps choice" only too vividly demonstrates what sheer ignorance and self-serving feelings of moral superiority can lead to when people are not informed by either science or compassion. It makes me truly sad that a person affiliated with a great science school can provide such a colorful demonstration of that.

I am not going to provide legal arguments — I will leave that to legal scholars. I can only provide the perspective of a scientist and a women's rights activist. Let us start with the alleged "fuzziness" of when the life begins, which, according to Normandin, we "after all do not know." Well, some of us do. Life begins at birth, period. It is at birth that a fetus becomes a separate organism from its mother.

What about the unique human genome, which is created when an ovum catches a sperm cell? Of course it is unique. As are at least dozens of genomes created the same way, which then proceed down the toilet when the ovum does not attach itself to the lining of the uterus - all without anyone noticing. Not to mention the millions of potential combinations which just never materialize because people don't have sex frequently enough. If one is so sad about those poor sods whose "right to life" is so horrendously denied, $\bar{I'}d$ suggest that they try to introduce a piece of legislation requiring everybody from 14 to 45 to copulate every day until they literally cannot do it any longer. After all, if they don't, they "prevent the child from being alive at a later time," as Normandin puts it!

Moreover, as biologists know, a genome is not all there is to how an organ-

ism develops. There are various complex mechanisms which turn genes on and off. Some of them we already understand, some of them we don't. I am O.K. with hearing a TV host saying things about our oh-so-unique DNA as if we were still in the 1930s, but at MIT, I tend to expect that people do their homework before touching upon complex scientific topics.

What about banning late-term abortions? What about "viable fetuses"? When a late-term fetus is born and made alive using our technology, that is a good thing. But it does not make the boundary any fuzzier. Similarly, we can sometimes treat cardiac arrest and revive a person, but that does not mean that a person is technically dead when the heart and breathing stop. In short, it is moral to try to give — or prolong — life when you can. But our

Abortion, Page 5

Doctrineless and self-absorbed

9/11/11 finds the US ignoring the nation's greatest security challenge

By Keith Yost

STAFF COLUMNIST

The decennial of the greatest terrorist attack against the United States is an occasion packed with retrospection and reflection. Every news network and publication is offering its two cents on what the U.S. did, what it should have done, and where it should go in the future. Normally, I might complain about the artificiality of it all - shouldn't we take stock of matters near actual watershed moments rather than a random anniversary? But September 11, 2011, strikes me as a wellplaced time for self-assessment - with bin Laden dead, Qaddafi in exile, and our missions in Iraq and Afghanistan coming to a conclusion, we may well be looking at an inflection point in our foreign affairs.

My own take is this: the state of U.S. foreign policy on September 11, 2011 is nearly identical to what it was on September 11, 1991 — we have no idea what our goals are or the best way to reach them.

Clinton's "humanitarian war" in Serbia, Bush's policy of preemption and

democratization in Iraq, and Obama's experiment with "Responsibility to Protect" in Libya may suggest an evolving and revolving set of aims and strategies.

The state of US foreign policy on September 11, 2011 is nearly identical to what it was on September 11, 1991.

But this notion of consistency is belied by the actions those presidents chose *not* to take — Bush never took preemptive action against Iran; Obama still views Syria as off-limits even as Assad brutalizes his people; and Clinton sat by while one-insix Rwandans were systematically murdered. For two decades now, our ship of state has been adrift, taking action on an ad hoc basis.

One might explain our lack of focus in our foreign affairs as the result of there being no pressing threat or no rival superpower like the Soviet Union to challenge our supremacy. Even China is a generation away from being any sort of serious military rival. Like indolent suburban teenagers, perhaps we have nothing better to do than lounge in our first-world opulence.

This view is overly optimistic. Flanked by non-threats like Canada and Mexico and distanced from the remainder of the world by the oceans, our North American neighborhood might feel like the suburbs. But the truth is that technological progress has changed the dynamic of conflict and eroded the ability of the United States to secure its citizens from attack.

Security and international relations studies are hostile to the notion that technology has a major impact on their field. This view is self-indulgent — it allows them to continue to think of security problems in familiar frameworks. But these frameworks are only valid in the context they were created. For example, wars fought with nuclear weapons are

National security, Page 5

CORRECTIONS

An article originally published on September 5, 2008, incorrectly stated that sorority recruitment had moved from fall to spring in 2007. Recruitment had moved from spring to fall.

OPINION POLICY

Editorials are the official opinion of *The Tech*. They are written by the Editorial Board, which consists of Chairman Joseph Maurer, Editor in Chief Ethan A. Solomon, Managing Editor Connor Kirschbaum, Executive Editor Aislyn Schalck, and Opinion Editors Nina Sinatra and Ryan Normandin.

Dissents are the signed opinions of editorial board members choosing to publish their disagreement with the editorial.

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Women deserve abortion rights

'Pro-life' advocacy is really about control of women

Abortion, from Page 4

ability to do so does not change when life starts or ends.

Normandin accuses abortion-rights people of "putting a higher value on [the woman's] life than [on] that of the child." Between many other statements in his column, this one is refreshingly true. Yes, I do put a value on a woman's life. I also do not put any more value on somebody else's fetus than I do on somebody else's egg or sperm cells. There is some value, but it is very different from the value of a human life. That does not mean that I rule out the ability to care about a particular fetus or an egg cell, for that matter. People have the right to choose what to do with their reproductive abilities as they see fit, and I am completely for protecting that right and making sure everyone in the society can exercise it freely.

I disagree with people who do not care strongly enough to even get their biological facts right, and who feel so self-righteous that they put a higher value on a part of a woman's body than on her person and her life. There really is a choice here: the one between being a feel-good crusader for the fiction of "the lives of unborn children," and learning a little bit more about people around you. The fantasy world of profile activists is very comforting. It just does not have anything to do with the actual protection of human life.

But let us return to facts once more. Normandin says that it is just "a claim" that banning abortion leads to back-alley abortions.

Well, the last time I checked, there was plenty of evidence out there. If you are too lazy to learn the facts, it does not just make them "claims." The parts of the world where abortion is largely illegal — such as Latin America and Africa — have higher rates of abortion than the U.S., and maternal mortality from abortion is hundreds of times higher. Other countries have experimented with banning abortion, including the USSR in the 1930s under Stalin and Romania in the 1970s under Ceausescu. Maternal mortality from illegal abortions soared, but that

It is your fault, you evil murderer!" This underscores the whole set of convictions of the column's author: the harm to women just does not enter the picture. It is simply irrelevant. Let those women die; they asked for it. Who is the bigger, more ruthless murderer here?

I'd be happy if that set of convictions was rare, but it is not. And it comes in a pretty comprehensive package of beliefs that many anti-abortion activists share. The anti-abortion movement has roots in the strands of Christianity, where women

an excuse. A hundred years ago it used to be about the right to vote. Today, it is about abortion rights. But one thing has not changed: the people — both men and women alike — who want to keep women oppressed do not care for a scientific investigation of the matter. They do not care about other human beings. They are selfish and ignorant.

I am sorry for using very harsh language in this reply. But I feel it is necessary in this case. When two males on the newspaper's opinion page discuss a question that directly affects all women's lives with almost academic detachment, what I think about is how I often cry hearing real people's stories about illegal abortions and abortions that lead to societal and internalized stigma. What I want to ask them is how can they live with themselves? How can they be so blind and deaf? It is an offense against morality to ignore people's suffering, to talk as if it is just not there. It is arrogance to decide for other people what is better for them. It is overwhelming pride to use selfserving fantasies to justify the harm you do.

about is control over women. It is about

making women less than full people. It

is not even about fetuses — they are just

Women have the right to be in full control of what they do with their bodies. They also have the right to be spared from being talked about in the manner Normandin did — as if they just were not there, as if their lives were not worth protecting.

Igor Yanovich is a graduate student in the Department of Linguistics and Philosophy.

The anti-abortion movement has roots in the strands of Christianity, where women are supposed to remain domestic, weak and submissive to men, especially in public. According to their world view, women should not use contraception.

does not mean abortion became rarer. In fact, ex-USSR countries and Romania are among the world champions competing for the highest abortion rate. Banning abortion leads not to making abortion rarer, but to making it more frequent.

The ending of Normandin's column counters that preemptively. He says, discussing the harm of illegal abortions, "if the mother contracts an infection because of her illegal acts, that is unfortunate, but when you do something illegal, you know the risks." To put it more bluntly, "I don't care if you die because I banned abortion.

are supposed to remain domestic, weak and submissive to men, especially in public. According to their world view, women should not use contraception. Many antiabortion activists are also anti-contraception activists, fighting for the right of pharmacists to refuse selling contraception on grounds of conscience. At times, it really makes me wonder: What will they come up with next? Maybe mandatory euthanasia for women who cannot bear children or provide sexual gratification for their husband and protectors?

Sadly, what all this "pro-life case" is

Like fighting in the dark

Anonymous warfare threatens a delicate international balance

National security, from Page 4

fundamentally different from wars fought with sticks and spears. What use is a balance of power theory when applied to relationships between nuclear powers? What prevents a scrappy nuclear state, outnumbered ten-to-one, from achieving the same level of security as a superpower?

It took decades to come to grips with nuclear doctrine, and in the time we spent discovering Kahn and Schelling, we lost trillions of dollars, thousands of lives, and risked the sum of our societies in needless confrontations. And in the end, we lucked out. The model of international relations we had going into the Cold War at least gave us forewarning; we might not have known what to do in a nuclear era, but, having identified states as the principal actors in the world order, we had bureaus of men like George Kennan to deliver us treatises on the Soviet mindset.

This time around, we'll get no *Long Telegram* because there is no embassy to telegram from. Our warnings are coming in the form of panicked reports of intensifying cyber warfare and increasing volumes of weapons-grade nuclear material on the black market. We are facing a paradigm shift just as important as that brought

about by nuclear-tipped ICBMs. For the first time in history, we are looking at the possibility of large-scale anonymous war — war fought with means that negate deterrence because they obfuscate the identity of the attacker. And we have no guarantee that our opponents will be states — as technology proliferates, we will increasingly see sub-state entities with access to anonymous warfare capabilities.

The best example of this new form of warfare is Stuxnet, the computer worm engineered to destroy Iran's nuclear enrichment program. Stuxnet broke new ground in cyber warfare - this was an attack on an off-grid asset that the Iranians presumably took great care to secure. The technique used to penetrate Iranian enrichment facilities and cause them to self-destruct could just as easily be used to cripple an electric grid, turn a petroleum refinery into a smoldering ruin, or cause a nuclear plant to go prompt critical like Chernobyl. But the most important feature of the Stuxnet attack is not its destructive potential — it's that identifying the author of Stuxnet or a similar attack is nearly impossible.

Without the spectre of retaliation, states are likely to shed many of their inhibitions toward conflict. What is to prevent the United States, convinced that China steals

jobs from America, from sabotaging Chinese industry by launching Stuxnet-style attacks on Chinese commercial factories? Assuming China identifies the events as the work of an attacker, it might logically deduce that one of its enemies is responsible. But which one? The U.S.? Japan? Russia? Or maybe some angry dissidents? And vice versa — if the U.S. electrical grid turned off tomorrow, who would we blame, and how would we respond? Against such assaults, there is usually little else to do but absorb them and fall behind in the march of nations

Without the spectre of retaliation, states are likely to shed many of their inhibitions toward conflict.

It's not just cyber war that can be made anonymous — as nuclear weapons proliferate, it becomes harder and harder to assign authorship to an act of nuclear terrorism. If the Soviets had been able to smuggle a nuclear weapon into the United States and vaporize New York, they couldn't shrug their shoulders when the

U.S. looked for vengeance — the rogues gallery capable of such an attack was just too small. But as the nuclear club expands, deterrence against such attacks is weakened. And if the plotters are a sub-state entity, like Al-Qaeda, then deterrence may be a moot point anyway.

a moot point anyway.

Put 20 men in a room together with knives, and foreign policy experts will give you a dozen theories on how to keep the peace between them — collective security arrangements, balancing alliances, shared cultural bonds, and so on. But we've yet to find an international system that can offer security once the lights in that room have been turned off — in the pitch black of anonymous warfare, maybe the only road to safety is to stab 19 people. That is the grim future that the U.S. must work to avert

We are the hegemon that sets the rules and dictates the structure of the international system. But such power does not last forever. There is limited time to grapple with this new form of conflict, prepare ourselves and the international order for its effects, and find ways to fight the technological trends that empower anonymous warfare. Sadly, this is a challenge that the U.S. of September 11, 2011, does not appear ready to face.

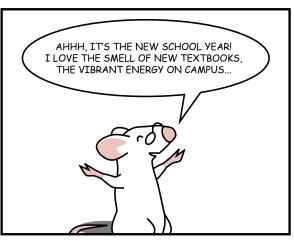




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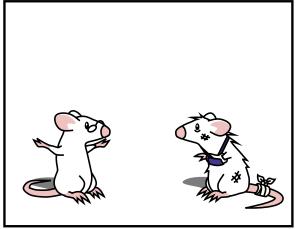


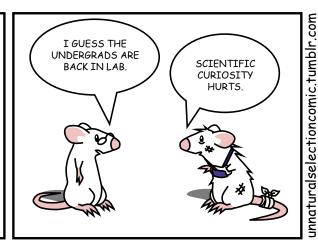
Unnatural Selection by Meisel/Tonn/Wang



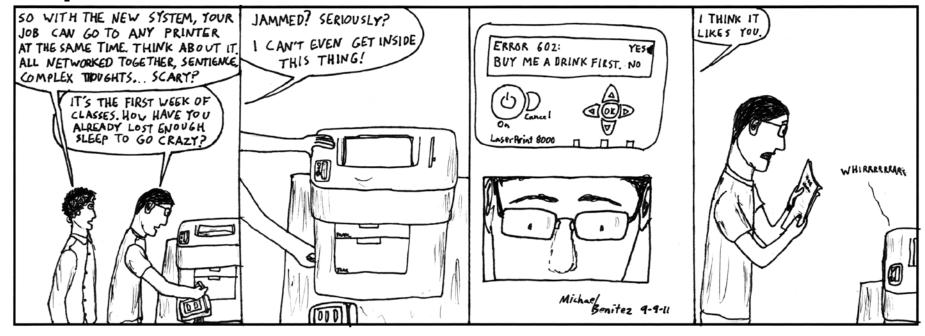
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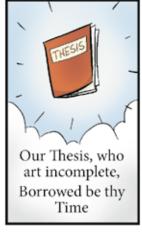


Helpdesk by Michael Benitez



A PRAYER FOR GRAD STUDENTS





As we forgive

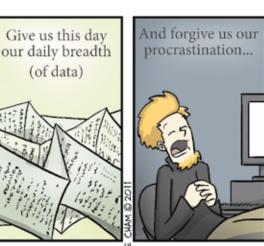
those Professors

who procrastinate

against us.







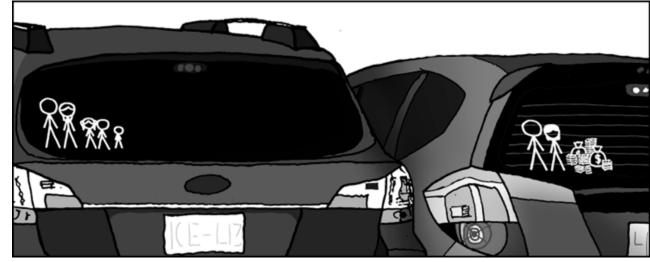


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THE TECH 7 FRIDAY, SEPTEMBER 9, 2011

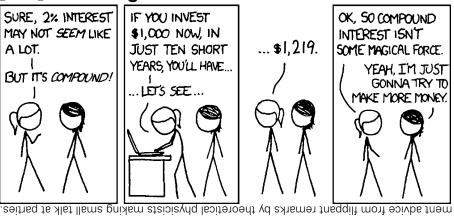


[946] Family Decals



My decal set has no adults, just a sea of hundreds of the little girl figures closing in around a single cat.

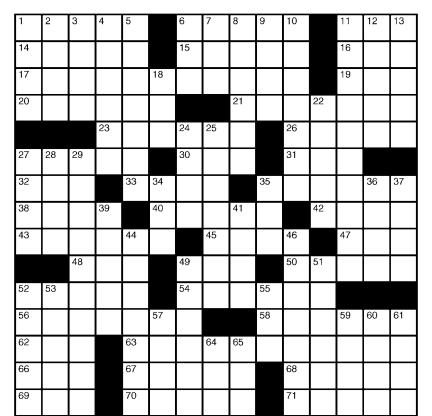
[947] Investing



But Einstein said it was the most powerful force in the universe, and I take all my invest-

Crossword Puzzle

Solution, page 11



ACROSS

- 1 Texas mission
- 6 Composers' grp.
- 14 De Brunhoff's elephant 15 Mythical weeper
- 16 Forever and a day
- 17 Newlywed's
- transport? 19 Nuptial lead-in
- 20 Will contents 21 Symbol of
- Communism
- 23 Blades to cut blades 26 Leaning
- 27 Open sore
- 30 Agile deer
- 31 Toshiba rival
- 32 Neighbor of Isr. 33 Wound cover
- 35 Unchanging
- 38 Israeli resort 40 Our country, slangily
- 42 Created
- 43 Change postal maps
- 45 165, once
- 47 Negative link
- 48 Singer Sumac 49 Scare word

- 50 Twistable joint
- 52 Pale
- 54 Not close-minded about
- 56 Storage rooms
- 58 Helmet 62 Old salt
- 63 Racketeer's transport?
- 66 Approves
- 67 Attempter
- 69 Born
- 68 "Tomorrow" musical
- 70 Maternally related

- 71 Simpleton

DOWN

- 1 French cleric
- 2 "I Remember Mama" character
- 3 Somewhat
- 4 "__ Butterfly" 5 Noted speakers
- 6 Leaf-cutter, e.g.
- 7 Knight's title
- 8 Rough
- 9 Irish Rose's love
- 10 Hanging ornament 11 Sanitation transport?
- 12 Strong pink

- 13 Motionless
- 18 Actor Ayres
- 22 Word with engine or
- 24 Big times
- 25 Peter Weller movie
- 27 Manipulator
- 28 Singer Lovett 29 Native American
- transport?
- 34 Pool stick
- 35 Coltrane's instrument
- 36 Adored one
- 37 Beak's fleshy adjunct
- 39 Big books
- 41 Ice on the move
- 44 Actress Fabray
- 46 City in Rome 49 __-Herzegovina
- 51 Emphatic refusal
- 52 Respond to
- 53 Quench
- 55 PMs
- 57 Small gull
- 59 Ranch worker
- 60 LSD, to users
- 61 Those people
- 64 Place to surf 65 Dander

Sudoku

| | | | 2 | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2 | | | | 3 | | 4 | 1 | |
| | 1 | 9 | 7 | 4 | | | | 6 |
| 6 | | | | | | 3 | 5 | |
| 9 | | | 1 | | 6 | | | 8 |
| | 5 | 7 | | | | | | 9 |
| 7 | | | | 1 | 2 | 5 | 8 | |
| | 8 | 5 | | 9 | | | | 1 |
| | | | | | | | | |

Instructions: Fill in the grid so that each column, row, and 3 by 3 grid contains exactly one of each of the digits 1 through 9.

Techdoku

Solution, page 11

| | | 12+ | | | 2- |
|----------|--------------|--------------|----------------------|-------------------------------|-----------------------------------|
| 21× | - | 5× | 140× | | |
| | 2× | | 2 | <u> </u> | 42× |
| 9+ | ┪ | 2÷ | | 90× | ┪ |
| - | 20+ | | | <u> </u> | 5× |
| <u>_</u> | 7 | - | 1 | <u> </u> | |
| | 5 | | 2÷ | 1 | 1 |
| | | 9+ 20+ 7 | 21x 5x 2x 9+ 2÷ 7 | 21x 5x 140x 2x 2 9+ 2÷ 7 1 | 21x 5x 140x 2x 2 9+ 2÷ 90x 7 1 |

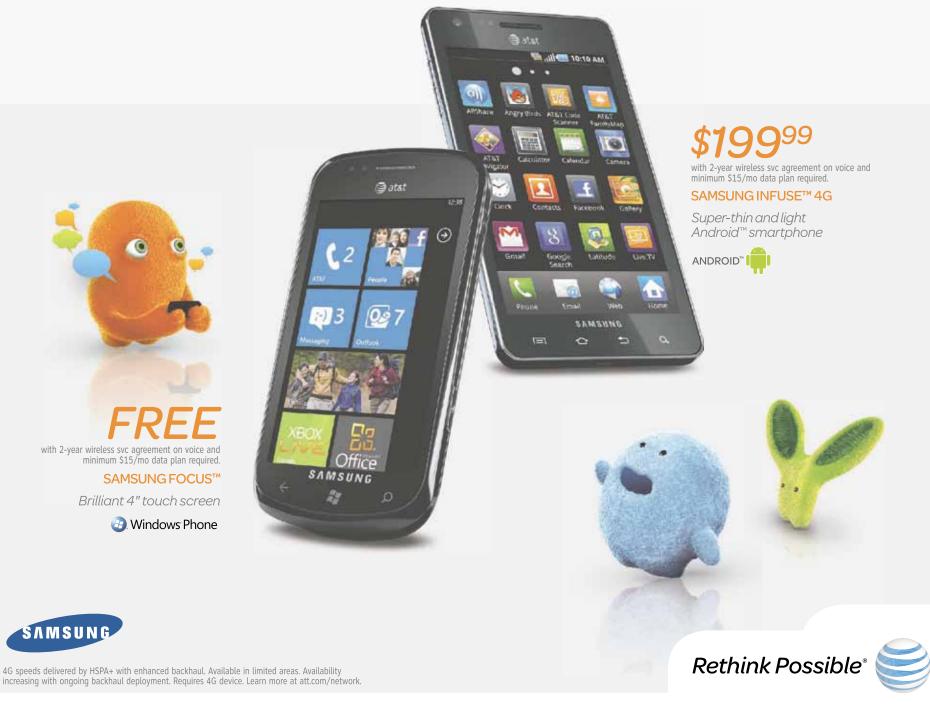
Instructions: Fill in the grid so that each column and row contains exactly one of each of the numbers 1–6. Follow the mathematical operations for each box.

8 THE TECH FRIDAY, SEPTEMBER 9, 2011



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FRIDAY, SEPTEMBER 9, 2011 THE TECH 9

Ten years later, reflections on the day still sting

Administrators and students vividly remember the shock and pain of September 11

9/11, from Page 1

he was on a boat in the middle of Lake Victoria, when he learned about the extent of the situation.

'I could not stop thinking about the irony of being in such a beautiful, pristine, natural place while slowly learning of the extent of the horror of the attacks in New York, Washington, and Pennsylvania," Vest said.

Continued conversation with MIT occurred via cell phone, landline, and "slow internet," Vest said. He was able to call in to the key decision-making meetings, including the meeting where it was decided not to close the Institute. "In this, I was mindful that MIT had remained open in the aftermath of the attack on Pearl Harbor in 1941," he said.

Back in the U.S., Dana A. Levine '02, then The Tech's editor in chief, woke up at his fraternity while his brothers watched the news unfolding on the TV. The gravity of the situation didn't really hit him, he says, until he got to his 9:00 class. Levine opened his laptop to get the latest news; CNN's servers were so overwhelmed, the news site only offered one page of information about the attacks, Levine

Meanwhile, Willmore was driving across the Massachusetts Avenue bridge when she heard the news on NPR. Her instinct, like many, was that this was just a horrible accident. Once she arrived at her office, however, she learned otherwise. Calls and emails from faculty and staff poured in, asking how best to support the MIT community. News on the television and on the internet, as well as reports from Campus Police and other schools, kept Willmore's office up-todate on the developments.

At about the same time, Chancellor Philip L. Clay PhD '75 was in a Japanese delegation meeting; there was noticeable tension outside his office when the meeting let out around 9:30. Soon thereafter, Willmore called a meeting of MIT's crisis team, a group of the senior administration, the Director of Human Resources, the Chief of Campus Security, and others.

Professor Robert P. Redwine, then the Dean for Undergraduate Education, made his way to the President's conference room for this meeting. On his way, he ran into Alexander V. d'Arbeloff '49, then the chair of the MIT Corporation, who had just finished a lecture at Sloan. After a brief chat, Redwine realized d'Arbeloff knew nothing of the attacks. "I said, 'Look, there's something very important going on - I'm heading to a meeting. I think you should come 'To be honest, almost all of us wanted to go home because it was a day you wanted to hug your children, literally.' –Robert P. Redwine DEAN FOR UNDERGRADUATE EDUCATION ON 9/11

ing at MIT and what kind of support he said he just wanted to "look into this more," and considered publishing an extra issue.

After Chairman Jordan Rubin '02 agreed with Levine's idea, The Tech got to work on its first extra issue since Dec. 10, 1999. As impressive a feat it was for an issue to be laid out and published in less than 24 hours, Levine said that it wasn't chaotic: "I don't remember there being a lot of rush." He estimated that he only had to call a couple writers to get enough

Jennifer B. Kehoe '04 entered the newsroom, her usual lunchtime hangout. Many Tech members were using the free phones in the newsroom to call family and friends - cell college campuses in 2001 as they are today. She had just sat through her public policy lecture after watching the coverage of the attacks; the instructor had spent the entire hour on environmental policy.

The mood in the newsroom was different. Instead of the usual p-set study groups and TV shows mixed with layout work. Kehoe said everyone was focused on the extra issue. "On that day, people were trying to do something. We're not firefighters. We're not CIA agents." According to Kehoe, doing something she knew how to do was comforting.

A photographer joined Kehoe, then a sophomore and news editor, and the two sat outside the offices of the senior administration, waiting for a chance to talk to them for her article.

"That was the only time I did that

That afternoon, she went to her

JOURNALIST 1ST CLASS PRESTON KERES combinatorics class, one of her favor-

ite classes at MIT. That day, the lecture covered the pigeonhole principle.

"I just left," Kehoe said. "I wasn't in a place to hear about something called the pigeonhole principle."

One of Kehoe's clearest memories from that week was a sheet of butcher paper posted in McCormick Hall where students could express their emotions. She remembered seeing the Prayer of St. Francis, which inNewman PhD '92, the shock was too close for comfort.

She was setting up for a 9:30 graduate aerospace class in 33-116 when she learned about the first plane crash. As Newman said, "Here I am, teaching a bunch of aerospace engineers" who were unaware of the horror unfolding in the skies.

As her lecture came to an end, she was met by a crowd of Course 16 students and faculty waiting to use the A/V equipment in the classroom to watch the news. At that point, "they had better knowledge of what happened than we did," she said.

Newman was scheduled to be on American Airlines Flight 11 headed to Los Angeles International Airport on Sept. 12 for a National Academy of Engineering conference. On Sept. 11, Flight 11 was the first plane to crash, flying straight into the North Tower.

Back in her office, Newman recalled feeling overwhelmed with this realization: "I was physically shaking. The ticket on my desk — it was there.'

Meanwhile, her husband, Guillermo Trotti, was in Trinidad. With the time difference, he said he "didn't have his days right," and grew concerned when he heard of Flight 11's fate. He immediately tried to contact his wife, but "all the lines were busy. Everything was down. It was like trying to call South America 40 years ago. You just dial, dial, dial," said Trotti, a native of Argentina. He was finally able to get in touch with Newman's assistant, who reassured Trotti that Newman was safe.

When he finally got to talk to Newman, Trotti had a clear message: "My first instructions to her were, 'You are not flying tomorrow. You are not going to that meeting." This was before they had heard of the grounded

Newman, on the other hand, felt that she still needed to go, but didn't realize the state of air travel in the U.S. Yet she was traveling soon enough, flying to D.C. for another meeting within the next 10 days.

"It was strange going through the airport for the first time after the attacks," she said. "There was not a feeling of safety."

It took Trotti about a week to return to the States.

Vest also experienced frustrating delays. He and his wife cut their trip in Canada short and in less than a week got one of the earliest flights allowed across the border to Providence, RI. They then rented a car and drove the 50 miles to Boston.

Vest was trying desperately to get back." Redwine said.

"I had, and still have, strong feel-

'I was physically shaking. The ticket on my desk — it was there.'

—Dava J. Newman PhD '92 PROFESSOR, COURSE 16

was available," she said. Willmore

was the point person for this effort,

working with Clay and Executive Vice

President John R. Curry and remotely

set up, and official messages, includ-

ing some from Vest in Canada, were

sent to the MIT community and stu-

were rumors that there were other

According to Redwine, "There

dents' families throughout the day.

A web communications page was

with Vest and Brown.

with me to this meeting,' which he did, and on the way upstairs, which was only a minute or two, I tried to briefly tell him what was going on,"

Redwine said. A television broadcast the news for those assembled in the conference room. d'Arbeloff sat in a chair facing the television and watched as the station replayed footage of one of the planes hitting a tower. "The look on [d'Arbeloff's] face, which was completely understandable, was just remarkable. His jaw just dropped; he couldn't believe what he was seeing. It was a replay for most of us, but not for him," Redwine said.

In the meeting, the team discussed what would be best for the

"As I recall, the meeting was quite focused, concentrating on reports from different areas and decisions regarding communications," Willmore

"Our main concern was to establish a coordinated communication system so that students, faculty, and staff would know what was happentargets, including possibly MIT, which wasn't any crazier than what we were seeing. We tried to figure out what to do with classes and the community." As a precaution, the Lincoln laboratory released nonessential staff for the day while the Green Building was evacuated by Dean of the School of Science Robert J. Silbey, according to The Tech back in 2001.

Added Redwine, "To be honest, almost all of us wanted to go home because it was a day you wanted to hug your children, literally. But we also realized that our students, especially the undergrads, couldn't go home. They were here and so it hardly seemed right for everybody to just leave. So we had to maintain an appropriate presence on campus."

To Clay, closing the school made no practical sense. With airplanes grounded, most students had little opportunity to go home. "They had nowhere to go," he said.

So classes weren't cancelled officially, but The Tech's Levine decided he was done for the day. It was then that he walked over to the newsroom;

During the business-as-usual lecture, Kehoe says she could not help but think, "I cannot believe this. How are you not talking about this major public policy issue?"

as a reporter," Kehoe said.

cludes the following segment: Lord, make me an instrument of your peace. Where there is hatred, let me where there is injury, pardon;

where there is doubt, faith: where there is despair, hope; where there is darkness, light; and where there is sadness, joy.

According to Kehoe, the prayer gave her comfort, even though she didn't know who put it on that butch-

"People were mostly in shock. [They] didn't perceive the magnitude. I know I didn't," Levine said.

For Course 16 Professor Dava J.

ings of guilt about not being on the campus at a time when I knew there would be much angst, confusion, anger, sadness, and need for discussion," Vest said.

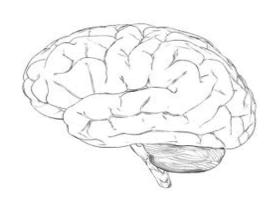
Then MIT President Charles M. Vest worked remotely from Banff,

Cananda, to help coordinate MIT's response to the September 11 attacks.

On the afternoon of Sept. 11, as a spontaneous vigil on the steps of the Student Center came to an end, Willmore asked a number of faculty to come back to the President's office to discuss what should be done about classes. "It was agreed to hold classes but with the understanding that faculty should feel free to use that time in whatever way they thought would be

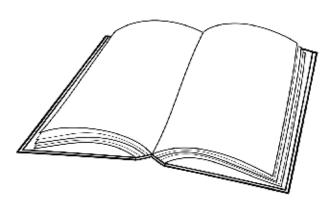
Coming together, Page 13

the









an online student handbook with information on mit policies and campus resouces

find information on the academic integrity and copyright policies on this website

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NEW YORK London Hong Kong

Lithium batteries short out during travel

CSAIL package to Seattle catches fire in FedEx sorting facility

FedEx fire, from Page 1

"Smoke and flames were coming from the shipment while it was being transported on a conveyor belt," the FAA said. Because of the chemistry of lithium batteries, which can provide their own oxygen, FedEx employees were unable to put out the fire with extinguishers.

The FAA said that MIT violated Department of Transportation Hazardous Materials Regulations (49 CFR §171-173) in 21 different ways. MIT is liable for \$250-\$50,000 for each violation, and the FAA proposed a total of \$175,000.

The FAA's Notice of Proposed Civil Penalty (see related content online), dated Jul. 26, 2011, identifies the shipper as Lewis D. Girod, part of the SENSEable City Lab team which works on tracking trash with small transmitters. Girod had shipped the package to Professor Carlo Ratti, the director of the team, in Seattle. Last night, Ratti was travelling in Germany and could not be reached.

MIT's response to the FAA is due on Sept. 16, after MIT requested and received an extension from the FAA's 30-day deadline, according to FAA spokesman Jim Peters.

Girod said in an email: "The batteries were single-cell lithium polymer batteries and they were installed into prototype tracking devices. The devices were shipped without enclosures because they were going to be activated and potted at their destination. Several devices were packed next to each other with insufficient material separating them from each other."

"During shipping," Girod said, "a component of one device punctured the battery of another device next to it, causing an internal short. The two devices involved were badly charred but I believe that the others were unharmed."

As a result of this incident, MIT's Environmental Health and Safety office has increased its outreach efforts to attempt to ensure that MIT shippers are aware of the requirements for shipping hazardous materials, including batteries, said

Solution to Techdoku

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Solution to Crossword

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Solution to Sudoku

William C. VanSchalkwyk, Managing Director of EHS.

Two days after the incident, EHS sent out a notice to administrative assistants and to department, lab, and center coordinators, to "raise awareness across campus" about the special requirements for shipping lithium batteries and equipment containing them.

"MIT has been extremely supportive throughout the event," Girod said.

"MIT has taken very aggressive action in identifying those individuals within MIT who have responsibilities for shipping hazardous materials," Peters of the FAA said.

According to the FAA notice, the proposed \$175,000 penalty includes a reduction for "corrective action" taken by MIT.

EHS is happy to help MIT users ship these materials, VanSchalkwyk said. "We'll even ship it for you," he said. "Just call the EHS main number [617-452-3477], and we'll step you through the process." He recommends three days' advance notice

Asked how many students and staff might still be shipping hazardous materials illegally, VanSchalkwyk said the number was "extremely low."

"We have done some checking"

he said, and "we think the program is very effective."

The FAA said there was no fixed timeline for the penalty process, but that the FAA was likely to issue a Final Notice of Proposed Civil Penalty, possibly within a few months. Before that point, MIT has several options, including paying the proposed the penalty; submitting evidence that the penalty is unwarranted; requesting a reduction of the penalty; or requesting an informal conference to discuss the matter with an FAA attorney.

VanSchalkwyk said that this was the first time MIT had been assessed a penalty by the FAA, but declined to comment on the frequency of penalties from other agencies. "We deal with all the environmental agencies," he said, including federal, state, and local agencies, such as OSHA and the Nuclear Regulatory Commission. "There are more than 200 regulatory programs" that affect MIT, he said.

An MIT spokesperson, Marta Buczek, declined to comment on the FAA proceedings, and could provide no information as to whether MIT had responded to the FAA.

"I'm very thankful that the fire occurred before it got on a plane and that nobody was injured," Girod said. "And I always pack things of this sort carefully now."

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EVENTS SEPT. 6 – SEPT. 12

FRIDAY

(4:30 p.m. – 6:00 p.m.) Starr Forum: <u>Top Secret America</u>, book talk by Dana Priest of the Washington Post — E14-674

(7:00 p.m., 10:00 p.m.) LSC shows *X-Men: First Class* — 26-100

SATURDAY

(7:00 p.m., 10:00 p.m.) LSC shows *X-Men: First Class* — 26-100 **SUNDAY**

(4:00 p.m. – 7:00 p.m.) MIT's Heritage of the Arts of Southasia presents presents Malladis/Gundechas, North/South vocal duet — Kresge Auditorium

(8:00 p.m. – 11:00 p.m.) Folk Dancing Beginner's Night — La Sala de Puerto Rico

MONDAY

(2:00 p.m. – 3:00 p.m.) Nuclear and Particle Theory Seminar — 6C-442

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Google defends its huge use of electricity

Energy per user actually small

By James Glanz

Google disclosed Thursday that it continuously uses enough electricity to power 200,000 homes, but it says that in doing so, it also makes the planet greener.

Every time a person runs a Google search, watches a YouTube video or sends a message through Gmail, the company's data centers full of computers use electricity. Those data centers continuously draw almost 260 million watts — about a quarter of the output of a nuclear power plant.

Until now, the company has kept statistics about its energy use secret. Industry analysts speculate it was because the information was embarrassing and would also give competitors a clue to how Google runs its operations.

While the electricity figures may seem large, the company asserts that the world is a greener place because people use less energy as a result of the billions of operations carried out in Google data centers. Google says people should consider things like the amount of gasoline saved when someone conducts a Google search rather than, say, drives to the library.

"They look big in the small context," Urs Hoelzle, Google's senior vice president of technical infrastructure, said in an interview.

Google says that people conduct more than 1 billion searches a day and numerous other downloads and queries. But when it calculates that average energy consumption on the level of a typical user, the amount is small, about 180 watthours a month, or the equivalent of running a 60-watt light bulb for three hours. The overall electricity figure includes all Google operations worldwide, like the energy required to run its campuses and office parks, Hoelzle added. Data centers, however, account for most

For years, Google maintained a wall of silence worthy of a government security agency on how much electricity the company used — a silence that experts speculated was used to cloak how quickly it was outstripping the competition in the scale and efficiency of its data centers.

The electricity figures are no longer seen as a key to decoding the company's operations, said Hoelzle.

Unlike many data-driven companies, Google designs and builds most of its data centers from scratch, down to the servers using energy-saving chips and software.

Noah Horowitz, senior scientist at the Natural Resources Defense Council in San Francisco, applauded Google for releasing the figures but cautioned that despite the advent of increasingly powerful and energy-efficient computing tools, electricity use at data centers was still rising, because every major corporation now relied on them. He said the figures did not include the electricity drawn by the personal computers, tablets and iPhones that use information from Google.

"When we hit the Google search button," Horowitz said, "it's not for free."

Google also estimated that its total carbon emissions for 2010 were just under 1.5 million metric tons, with most of that attributable to carbon fuels that provide electricity for the data centers.

MIT community came together during aftermath Professors held classes as an opportunity to let students talk about their thoughts, feelings

Coming together, from Page 9

most helpful to students," Willmore

According to Willmore, the group also decided to hold an official vigil on Sept. 12. Afternoon classes were cancelled in order to invite the entire MIT community, which Clay announced in an e-mail to the MIT community the night before.

Clay's objective for the vigil was to hold an event "where everyone could come," regardless of religion or nationality. His intended message, "teaching the community to embrace each other rather than run from each other," stressed that nothing had changed in the community.

As he said in a MIT150 Infinite History interview in 2008, "part of the effort was to remind the community that we were an intentional community that had chosen each other, and that the relationships that existed so well on September 10th needed to be preserved. And it was very important on the afternoon of the 11th, to reach out to Muslim students, quite directly and quite substantially, for them to participate in the community activity, and that when we put together the panel of clergy, that we include a Muslim clergy as well."

"Muslim students were really afraid. They wanted to be in a safe community ... they just wanted to be MIT students!" Newman said.

Sergeant Cheryl N. Vossmer of the MIT Police said she remembers a Muslim student stopping her in Lobby 7 to ask if he and his wife were going to be safe.

While there was finger-pointing elsewhere in the country, Newman was proud that she sensed very little of that on campus: "Not at MIT. Our community's here. We're going to embrace everyone." She remarked

that the events brought different was being planned on September 11, peoples together in an overall mood

Chaplain Robert M. Randolph had asked MIT Police to protect the Religious Activities Center in case according to Randolph.

Willmore called the event extraordinary."

"It was truly wonderful — and so characteristic of MIT - how everythe time for a different purpose. She told her students that she was more interested in how they were feeling and just wanted to give the opportunity for them to talk about it.

While they tackled the Institute's

'It was truly wonderful — and so characteristic of MIT — how everyone came together to help the campus cope with this tragedy, not just that day, but in the days, weeks and months that followed.

> —Kathryn A. Willmore VP AND SECRETARY OF THE MIT CORPORATION

of anger towards the Muslim community as a precaution, but there were never any issues. According to him, the purpose of the center, opened in 1995, was to build relationships amongst MIT's religious communities. This, he said, contributed to MIT's vibrant community

that "accepted and honored" all its

About 5,000 students, faculty, and staff were present at the Sept. 12 Killian Court vigil, which was organized by the Board of Chaplains. As the MIT News Office reported in 2001, this was the largest turnout on Killian Court for an event — besides commencement — in 85 years. The program began with music, speeches, and a moment of silence. The assembly later broke into small groups of 10-15 people with over 120 faculty facilitators recruited the night before, leading discussions on the emotions felt by the community.

In the past, the Institute used a similar small group format for freshmen summer reading discussions, but "the idea of using [Killian Court] and gathering individuals, advisors, and faculty was an idea that came into bloom for that event" when it one came together to help the campus cope with this tragedy, not just that day, but in the days, weeks and months that followed," she said.

In an email sent just after 9 p.m. the night before to the MIT faculty, Clay, Redwine, Faculty Chair Stephen C. Graves, and Dean for Graduate Students Issac M. Colbert wrote, 'Clearly, business as usual is not possible in the short term. While some have suggested that canceling classes and closing the Institute would be appropriate, we believe that at a time like this, contact between students, faculty, and staff is MIT's greatest resource. We need to take advantage of this resource, which would be precluded if we close the Institute."

The letter then went on to suggest that faculty devote class time to discussions, offer additional opportunities to meet with the students, or cancel classes if the time wouldn't be used productively otherwise. For this, Newman admired the administration's response. "It was handled well, to say 'let's just take time ... it was so darn shocking, let's just talk about this."

Instead of cancelling her Thursday lecture, Newman decided to use response to the situation, the administration, like seemingly everyone that day, was battling personal connections to the attacks. Clay's daughter worked on 160th street in Manhattan. Vest's son was the resident in charge of the ER at Columbia Presbyterian Hospital in New York and his daughter lived in the DC area. Then Associate Provost Claude R. Canizares' son was in a DC newsroom. All survived the attacks.

"What really hit home later was the impact on alumni, MIT Corporation members, and others who lost so many colleagues and friends, especially in New York. One trustee told me that he had spoken at something like 20 funeral services," Vest

Willmore described how her outlook had changed since that morning drive across the Charles River when she first heard the radio reports: "I remember driving back into Boston over the Mass. Ave. bridge [that night], the city lights shining on the water as they do every night, and thinking that everything had changed, including the fact that there were no planes flying, not that

night and not for several days. Their absence was an eerie reminder of our vulnerability."

Clay said he didn't get back home until 10 p.m., more than three hours later than usual.

Redwine, on the other hand, spent the night on campus. The midmorning administration meeting had led to a decision to keep one senior person on campus at all times.

"We were worried about communications getting even worse, so somebody needed to be around who would be able to make decisions, working with MIT Police if necessary," Redwine said. He went home, grabbed a sleeping bag and something to eat, and returned to his office. He walked around campus, keeping in touch with the MIT Police. "In the end there was really nothing to worry about but we didn't know that at the time," Redwine said.

As she tried to cope with the situation, Kehoe says she felt most comfortable in small, familiar settings. After The Tech's extra issue had been sent to the publisher, she went back to her room in McCormick and drank hot chocolate with her roommates.

'People were mostly in shock. [They] didn't perceive the magnitude. I know I didn't.'

-Dana A. Levine '02 FORMER TECH EDITOR IN CHIEF

"We had to go back to that community," she explained.

In the days and weeks after the attacks, MIT's story continued as the nation recovered in the aftermath.

Part Two of this article will be published on Tuesday, September 13.



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Friday, September 9, 2011

The Tech 15

DormCon printed DC this year

Attempted to distribute REX guide at freshman check-in

REX, from Page 1

Other dorms held their planned events, albeit with diminished attendance.

Daily Confusion

In addition to the Hitchhiker's Guide and the REX Guide, the Daily Confusion — an alternative REX timetable — was distributed by DormCon to dormitories and in the Student Center. The Daily Confusion is a guide of funny and ironic dorm activities meant to "give dorms another way of communicating their unique sense of humor to freshmen," according to Alicia T. Singham Goodwin '14, DormCon's vice president for REX.

Though the Daily Confusion is traditionally printed by *The Tech*, it was independently produced and distributed by DormCon this year. Until the DormCon-produced version this year, the Daily Confusion included mostly traditional REX activities, with some additional humorous event listings.

Tech Chairman Joseph R. Maurer '12 clarified why the Daily Confusion was not printed in The Tech: "We offered DormCon the same terms this year as we've offered the FSILGs and DormCon in recent years," he said. "DormCon was concerned over the editing process and was uncomfortable with us editing the content to our standards. We weren't able to reach an agreement over the editing process, which is a shame because the Daily Confusion is a service we provide and we think it is a good one."

"We think it is useful for the incoming freshmen," Maurer added, "and we want to provide it again in the future."

As in previous years, an edition of the Daily Confusion for FSILG rush was printed in *The Tech*.

DormCon's REX guide

DormCon also organized an inhouse effort to distribute its REX guide to freshmen. "To ensure that all freshmen are well-informed about REX and have access to as much information as possible, we're going to have people waiting right outside the door to the check-in room handing out REX guides," Singham Goodwin wrote in an email sent to each dorm's REX Chairs. "Please sign up for a 2 hour slot ... to volunteer to help [hand] out REX guides over the next week and a half."

Young disapproved DormCon's methods. "Students cannot just distribute materials," she said. The proper procedure for student groups that wish to reserve a table on the first floor of the Student Center involves notifying the Campus Activities Complex (CAC) ahead of time to express interest. "There was plenty of space," said "DormCon just never pressed an interest in a timely fashion ... I met with [Singham Goodwin] many times and she never once said she was interested in having a table."

"There is no reason DormCon needed to pass things out," said Young. "This year, like the past ten years, we had the REX Guide on a table at the Orientation check-in — it was on a table."

DormCon's presence apparently slowed down the incoming freshmen and hindered the efficiency of the check-in process. "Check-in is a business that has to happen for freshmen to be able to go through with the rest of Orientation ... we are here to help the next person to come in, get what they need, and go," said

Young. "If students don't check in, there is no Orientation — we're a customer service ... [the freshmen] have to check in."

Neither the Daily Confusion nor the REX Guide are included in the Orientation packet presented to freshmen at check-in. Instead, that packet includes the Hitchhiker's Guide and official information about the math diagnostic, freshman essay evaluation, and MIT's various learning communities.

"Our Orientation Guide is not

about highlighting specific programs," said Young. "If we published everything in the DormCon REX Guide in the Hitchhiker's Guide, the things that students have to do would be lost."

Despite REX-related complications, "Orientation was a great success," said Daniel E. Hastings PhD '80, the Dean for Undergraduate Education. "I saw some of the students at a dorm [REX] event and it just looked like they were having a lot of fun."

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YOUR NEW HOME TEAM

State of the Red Sox

The Boston Red Sox for the uninitiated

By Zach Hynes SPORTS STAFF

Editor's Note: Welcome to Boston! Since Beantown's professional sports teams are such an integral part of its culture, we're presenting an insider's view — history, current state, and future expectations — of each of them. The first installment in the series, originally published last fall but updated for 2011, features ... the Red Sox, of course.

To be a passionate fan of any team is, by definition, an emotional experience. You have to care about something over which you have no control and no inherent vested interest. You don't derive tangible benefits from the team's victories, but you suffer right along with it when it loses. To MIT students, this probably doesn't sound like a good use of time, energy, or money. Indeed, there are plenty of places where a baseball game is just a place for executives to entertain clients and do business, with the occasional glance at the TV screen. Boston is not one of those places. From April to October, the city is captivated by what happens at Fenway Park, the home of the Boston Red Sox. From November to March, regardless of whether the Patriots are in the Super Bowl, the Celtics are shutting down the competition, or the Bruins appear headed for the Stanley Cup, the city is concerned about whether the Red Sox will be ready for the next season.

However you may perceive it, Boston's collective mood is inextricably linked to the successes and failures of the Red Sox. It's a guaranteed conversation-starter at any time of the year anywhere in Boston and, for that matter, New England. For the uninitiated, here's a short guide to what you need to

A storied history

In 1903, the Red Sox conquered the Pittsburgh Pirates in the firstever World Series (to those new to professional baseball in North America, the World Series is contested by the champions of the National and American Leagues). Indeed, there was a time when the Pirates did not torture their fans with losing season after losing season. That championship was the first of many that the Sox would win over a prosperous fifteen year period. However, at the conclusion of the 1918 season, the Sox's owner sold the team's best player, Babe Ruth, to the New York Yankees. The outraged Babe claimed that the Red Sox would not win another title within his lifetime, a prediction that came to be called the Curse of the Bambino. The prediction would in fact stand the test of time (perhaps this type of curse is what Cleveland Cavaliers owner Dan Gilbert had in mind when he suggested that the LeBron-less Cavs would win a title before the Miami Heat). For the next 86 years, countless baseball legends (Johnny Pesky, Ted Williams, Jim Rice, Carl Yastrzemski, Dwight Evans) took

their talents to Beantown, but none of them came away with a championship ring. Meanwhile, the hated Yankees, first with the Babe and then with stars like Dimaggio, Mantle, Maris, Jackson, and others, won title after title. Improbable errors and botched personnel decisions, rather than general futility and indifference, are generally acknowledged as the reasons for the championship drought. As a new Red Sox fan, count yourself lucky to have been initiated during this new era of excellence (at least, we hope).

Recent past

The end of the championship draught was set in motion with the purchase of the Red Sox by a new ownership group at the conclusion of 2002. John Henry, a successful hedge fund investor, had previously been a part owner of the New York Yankees and subsequently a majority owner of the Florida Marlins. The sale of the team to Henry from the heirs of

However you may perceive it, Boston's collective mood is inextricably linked to the successes and failures of the Red Sox.

the long-time owner, Tom Yawkey, was full of implications. No less than the future of the Sox's historic ballpark (opened in 1912) was at stake; while Henry promised to renovate Fenway, others sought a more modern stadium in the Back Bay. To the dismay of some around Boston, Henry's bid won, and the rebirth of the franchise began. New marketing efforts led to the start of a sellout streak (every ticket in the stadium has been bought for a given game) that has set records and endures to this day; increased revenue and committed ownership put the Sox on (more) even footing with the Yankees. In 2004, the Red Sox finally vanquished the curse, turning the tables on the Yankees and proceeding to win the World Series. In 2007, they accomplished the same feat with a largely different cast of characters.

State of the team

Red Sox fans expect to make the playoffs every year, plain and simple. However, the Red Sox haven't endured this much bad luck since Mookie Wilson's groundball rolled under Bill Buckner's glove, effectively losing the 1986 World Series for the Red Sox. The Red Sox play in the toughest division in the superior league, and because of the number of injuries the Sox suffered last year, missed out on the postseason in 2010.

After this disappointment, the Sox made two major offseason acquisitions, signing star free agents Carl Crawford and Adrian Gonzalez, and were picked by many experts to be the best team in baseball this year. Both Crawford and Gonzalez got off to slow starts, however, as the team opened the season with six straight losses en route to a 2-10 start. The initial panic and criticism has subsided however, as the Sox have played themselves back into contention and, barring a historic collapse, earned a spot in the playoffs. The only question now is whether they can catch the Yankees for the AL East title.

Some names to know

Dustin Pedroia: Pedroia is notorious for his stature, self-confidence, and the skills to match. He is very endearing to fans, but this endearment is not easily explained to those on the outside. He speaks proudly of the numerous home runs he hit in Little League and promotes his batting practice sessions as "Laser Shows". He'll also do seemingly anything to help his team win and has overcome perceived physical limitations to become one of the best second basemen in the league.

Kevin Youkilis: Youkilis is the fiery first baseman who bears the load on offense. Lauded since his college days for his ability to "get on base" by swinging only at select pitches, he has developed into a player with bona fide power and incredible defensive skills. Every move he makes on the field is greeted with a "Yooooouuuuuuk" from the fans. It sounds like he is being booed, but in fact, fans are showing their appreciation for

Jon Lester: The Red Sox ace of the past few years, he came back from cancer in 2007 to win the clinching game in the 2007 World Series. Along with Clay Buchholz, Lester is a prime example of the Red Sox's successful investments in young prospects and superb player development process.

Where to find your team

Despite the ongoing sellout streak, tickets have become more accessible over the years. For most games, you can walk up and purchase tickets at the gate. For standing room tickets, expect to pay about \$20. Avoid the right field grandstand, where \$30 will give you an old seat that faces straight into left field. The upper bleachers (\$12) are the cheapest seats in the park but are not advisable if you want to follow the game. I would recommend paying the extra few bucks for the lower bleachers (\$28). Catching a game from atop the Green Monster, the fabled leftfield wall, is a great experience for a diehard Sox fan but costs upwards of \$100. Gates open two hours be fore the game, and players will take batting practice up until forty-five minutes before the scheduled start. If you are aggressive (or lucky) you might catch a ball or get an autograph from a player during this time. You can find them on television at the New England Sports Network (NESN).

SPORTS SHORTS

Klauber leads hockey to wins

After helping lead the MIT field hockey team to a pair of convincing wins to open the season, Kameron L. Klauber '12 was named NEWMAC Offensive Player of the Week on Monday. Klauber scored 11 points in two games, making four goals and assisting on three

In the season opener against New England College, Klauber found the back of the net twice and assisted on another score to help Tech record an 8-1 win over the Pilgrims. On Saturday, at UMass-Dartmouth, Klauber set up the first two goals of the game and scored a pair of goals herself later on in the 6-2 victory.

It is the second conference weekly honor for Klauber, who was also named Player of the Week during her sophomore campaign.

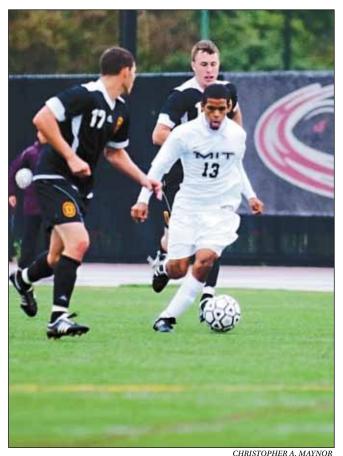
—Greg McKeever, DAPER Staff

Kabelac is soccer OP of week

Following an outstanding weekend, Zachary E. Kabelac '12 was named the NEWMAC Men's Soccer Offensive Player of the Week. The forward received Tournament MVP honors after totaling four goals, one assist and nine points while leading MIT to an undefeated outing at the University of Southern Maine Husky Classic.

In a 7-0 victory over the host Huskies, Kabelac recorded a natural hat-trick including the game-winning goal. He then posted one goal and set up the game-winner in a 3-1 decision over St. Joseph's

> -Mindy Brauer, DAPER Staff



Freshman Chester Chambers looks for a teammate to pass to during the men's soccer game against Framingham State Wednesday. The Engineers won 4-0, bringing their season record to 3-0

UPCOMING HOME EVENTS

Saturday, September 10

Sailing — Toni Deutsch Regatta Men's and Women's Cross Country

10 a.m., Franklin Park

9:30 a.m., Charles River

Sunday, September 11

Engineer's Cup

Sailing — Toni Deutsch Regatta Field Hockey vs.

Johns Hopkins University

9:30 a.m., Charles River

1 p.m., Jack Barry Field

Spielbauer and Schulte open fall season strong With a 4-0 record, Women's Volleyball takes first place at Regis College Pride Invitational

By Paul Dill

HEAD COACH

The MIT women's volleyball team opened its season by winning all four matches en route to a first

held

place finish at the Regis College Pride Invitational this past weekend. Katie K. Spielbauer '13 was named the Tournament MVP

while Kelly E. Schulte '12 earned All-Tournament team honors.

The Cardinal and Gray swept Suffolk University, 25-5, 25-13, 25-22, in the first match on Friday afternoon. Trinity P. Leonard '13 led MIT's balanced attack with five kills while freshmen Kayla Z. Harris '15 and Sarah J. Oberhelman '15 each had four kills. Cecily L. Jouion-Roche '12 connected on four of her seven hitting attempts to go along with two blocks. Sharon S. Hao '14 led the setting corps with 16 assists while Natasha H. Jensen '12 and Jessica L. Fessler '14 rounded out the defense with six and four digs.

Against NEWMAC foe WPI, MIT emerged with a 25-16, 25-17, 24-26, 25-19 victory. Leonard racked up eight kills, six digs, and three blocks as Kristine A. Bunker '14 totaled seven kills, a .545 hitting percentage, and five blocks.

The Engineers overpowered

Regis, 25-13, 25-12, 25-18, on Saturday. Rachel A. Hunt '14 led the front row with five kills and a .714 hitting percentage. Berger, Oberhelman, and Leonard each chipped in four kills. All four setters saw playing time as Hao paced the group with 10 assists. Jody C. Fu '15, Hao, and Fessler each contributed three digs while Rothman earned two aces.

In the finale, MIT defeated Worcester State University, 25-9,

25-16, 25-17. Leonard powered the attack with nine kills and recorded five digs as freshman Morgan R. Stewart '15 totaled five kills and two blocks. Hunt registered five kills and a block while Bunker tallied four kills, two aces, and one

The Engineers are off to a 4-0 start on the season and look to build on their success at the Vassar College Invitational Tournament this weekend.